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# THE POSITIVE POLITICAL ECONOMY OF ANALYTICAL ANARCHISM

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> How can it be that institutions which serve the common welfare and are extremely significant for its development come into being without a *common will* directed toward establishing them?
>
> *Carl Menger*[1]

## I. Introduction

Both the study of political economy and the study of anarchy are motivated by the same fundamental question: what are the institutional conditions under which it is possible to pursue the extensive gains from productive specialization and realize peaceful social cooperation without command? Understood this way, the study of anarchy is simply a subset of political economy; the two are distinct, though not mutually exclusive. Political economy as a positive and analytic study of governance employs two basic starting points as it seeks to explain why certain societies have grown rich while others have remained relatively poor. In the first, and standard, approach, a set of institutional arrangements is treated as exogenously given *and* a governing entity is assumed to have acquired a monopoly on legitimate force. The relevant institutional arrangements include well-defined and exchangeable private property rights and freedom of contract under the rule of law. Given such preconditions, the threat of force is utilized as a means to enforce private property rights, thereby establishing the framework that facilitates large-scale trade and capital accumulation, which are the prerequisites for economic development. If these preconditions are not in place, the presumption is that a society will be hopelessly caught in a violence trap,[2] one in which violence remains the predominant means of accumulating wealth, either directly through private predation or indirectly through state predation. The implication of this approach is that the absence of government will generate a negative-sum societal outcome.

A second approach to political economy—and the focus of this chapter—neither takes rules as given nor assumes that monopoly enforcement of such rules occurs. We refer to this approach as *analytical anarchism*. This approach is concerned with a positive study of *endogenous rule formation* by individuals within a particular society.[3] Such rules emerge out of the self-interest of these individuals, though not necessarily from any deliberate design. Grounded in economic reasoning, analytical anarchism requires neither an abandonment of the notion of scarcity (and hence of competition), nor does it require the benevolent transformation of human nature. Moreover, analytical anarchism is not a *normative* study[4] of a world in which the threat of force is absent. Given the ubiquity of scarcity, competition will inevitably emerge as a way of resolving conflicts among ends, and, therefore, force will always remain as one among many forms of competition over resources. Analytical anarchism is thus not an assessment of whether or not coercion should or should not take place. Rather, it is an analysis of how rules emerge and under what conditions *the discretionary use of force can be minimized* in the enforcement of such rules.

The purpose of this chapter is to provide a critical overview of the burgeoning literature concerning analytical anarchism. We begin, in Section II, by clarifying the presumption of social disorder that prevails among economists and other social scientists skeptical about the ability of anarchy to facilitate social order. In Section III, we outline some ambiguities and misconceptions in the analytical study of anarchy and discuss its importance for political economy overall. In Section IV, we outline and analyze two theoretical approaches that have been used to illustrate various historical cases of anarchism across time and place. We distinguish between an *exclusionary approach* to analytical anarchism and an *inclusionary approach* to analytical anarchism. Though these two approaches are not mutually exclusive, they are distinct from each other, in that they illustrate alternative mechanisms under which the conditions of anarchy can be relatively peaceful and productive. Section V concludes with implications for future research in political economy.

## II. The Presumption of Social Disorder without the State

From a political economy perspective, it is impossible to understand the emergence of analytical anarchism in the second half of the twentieth century without first placing it in its appropriate intellectual context. By the mid-twentieth century, a presumption of market failure[5] had come to dominate neoclassical economic theory, particularly in the field of public economics. Advocates of this presumption hold that market processes are exacerbated by inefficiencies—judged in relation to an ideal of perfection competition—associated with asymmetric information, externalities, monopoly power, public goods, and macroeconomic instability. Government intervention is treated as a necessary corrective for such market failures. Our purpose here is not to address the presumption of market failure, or the corresponding government failures associated with government intervention as a corrective to market failure, per se.[6] Rather, we will focus on the principal critique of analytical anarchism in political economy—the presumption that a state monopoly on the use of coercion is necessary for social order to prevail. We will thus be concerned with the *predominant* economic justification for the role of the state, namely the provision of public goods, including the establishment of secure property rights and the enforcement of contracts. Our work reflects the recognition that challenges to public goods theory have provided the theoretical building blocks that analytical anarchists can use to illustrate anarchy across time and place.

Beginning in the latter half of the twentieth century, economists such as Armen Alchian, James Buchanan, and Ronald Coase[7] began to critique the theory of public goods that served as the principal economic justification for belief in the state's essential role. According to Paul Samuelson's articulation of this theory, a public good, a good that is non-excludable and non-rivalrous, will unavoidably be suboptimally provided by the market for two reasons: (i) if private entrepreneurs are unable to exclude non-payers from the benefits of a good, large numbers of people will free-ride, declining to pay for their shares of the good, which will thus be underprovided; and (ii) the inability to establish property rights in public goods will keep entrepreneurs from using the price mechanism required to allocate these goods to their most valued uses.[8]

If a good is non-rivalrous, as public goods are said to be, the marginal cost of providing an additional unit of the good is zero. If a good is non-rivalrous, then, even if the price mechanism could be utilized to allocate the good, it would be suboptimal to charge a positive price for the good. This is because pricing the marginal consumption of an additional unit of a non-rivalrous good will result in suboptimal consumption of the good.

Among the examples of public goods provided by Samuelson were lighthouses.[9] Since ships passing in the night could simultaneously benefit from the light provided by a lighthouse without being stopped for payment, free-riding would result in the inefficient provision of lighthouses.

James Buchanan provided one of the earliest critiques of Samuelson by developing a theory of *club goods*.[10] According to Buchanan, the fact that a good is non-rivalrous doesn't mean that it must also be non-excludable. For example, access to a swimming pool at a private country club may readily be restricted to members of the club. If a good is excludable, consumption of the good can be restricted; free-riding can thus be ruled out, and with it a Samuelson-style case for government provision of the good.[11] For example, Coase challenged the notion that government financing and production of lighthouses,[12] which had been "simply plucked out of the air to serve as an illustration,"[13] was actually necessary. An empirical analysis of the operation of lighthouses in England and Wales prior to their nationalization in 1836 made clear that lighthouses could be privately constructed and financed and that non-payers of lighthouse services could be excluded from zero-price access to these services through the collection of fees, known as "light dues," at ports.[14] Therefore, lighthouses could qualify as club goods.

Armen Alchian and William Allen posed one of the earliest challenges to the notion that national defense was a public good by challenging the assumption of non-rivalry. As they frame it, the standard treatment of national defense as a non-rivalrous public good assumes that this good "is shared by everyone. More of it for one person does not mean less for someone else."[15] As a result, on a common view, it qualifies as "a public good and should be provided via government taxes and operation." In response, they ask the following question: "Does greater anti-missile defense for New York City mean greater defense for Houston, Texas?"[16] Both Tyler Cowen and Chris Coyne use a similar illustration to point out that, when the *marginal* unit of analysis is properly defined, what might be regarded as a public good is in fact rivalrous (as when the good in question is defense and the unit of analysis is defense from individual missiles).[17] As a result, additional resources allocated toward the defense of New York from missile attack come with *rising* opportunity costs of foregone defense against missiles targeted at Houston.

To be sure, Alchian, Buchanan, and Coase weren't anarchists. None of them intended to contribute directly to the study of analytical anarchism. They simply sought to challenge the notion that certain goods were *inherently* non-rivalrous and non-excludable without empirical study, and thus to reject the idea that the market provision of such goods could be known a priori to be subject to market failure.[18] However, their critique of the public goods justification for state action obviously raises questions about which goods, if any, must be provided by the government; it thus contributes important building blocks for analytical anarchism.

The most direct origins of the explicit study of analytical anarchism can be traced back to the Center for Study of Public Choice at Virginia Polytechnic Institute and State University.[19] Beginning in the 1970s, public-choice economists began to analyze the capabilities of individuals to engage in peaceful social cooperation without government. Although the idea that this might be possible no doubt seemed new and radical, rigorous economic inquiry into the potential dynamics of social order without the state dated back to at least the work of economist Carl Menger. Due to the civil unrest that emerged during the Vietnam War and the Civil Rights movement, James Buchanan, Gordon Tullock, and Winston Bush undertook a radical re-examination of alternative institutional arrangements for governing society. This analytical inquiry into the prospects for anarchism resulted in publications such as *Explorations in the Theory of Anarchy* and *Further Explorations in the Theory of Anarchy*.[20] As Bush observed,

> It is not surprising that 'anarchy' and 'anarchism' have reemerged as topics for discussion in the 1960s and the 1970s, as tentacles of government progressively invade private lives and as the alleged objectives of such invasions receded yet further from attainment.[21]

Given the historical context in which they were writing, Buchanan, Bush, and most of the other contributors regarded anarchism with skepticism.[22] They understood anarchy as a social condition characterized by the absence of law, involving banditry, violence, and general social disorder. These scholars uncritically identified *government* with *governance*. "The anarchists of the 1960s," Buchanan supposed, "were enemies of order, rather than proponents of any alternative organizational structure."[23]

Scholars studying the possibility of social cooperation without the state have continued to raise questions about the prospects for anarchy. For example, using economic analysis to understand the Sicilian Mafia, Diego Gambetta has argued that organized crime can facilitate trust and third-party contract enforcement where other means of enforcing property rights and contracts are deficient or absent.[24] However, on the basis of his empirical analysis, he concludes that the case of Sicily suggests that third-party enforcement of property rights and contracts under anarchy will ultimately be extortionary:

> Anarchists have argued that the state ought to disappear altogether for there is no need for its services. But this view is entirely different from advocating the privatization of justice and protection services. Among the few authors who argue in favor of the latter is Murray Rothbard .... He seems oblivious to the fact that the society he is proposing exists already in Sicily and can hardly be described as a success.[25]

However misplaced Gambetta's reference to Sicily as an example of anarchy may be, since it didn't meet the conditions of anarchy in the first place,[26] his criticism prompts two important observations not only about the positive *and* empirical study of anarchy but also about political economy in general. First, the historical *observation* of cases of anarchy is not synonymous with the *analysis* of anarchy itself. As Avinash Dixit notes, "case study [analysis] or empirical research should not treat each case as a mere narrative or description of an isolated situation; it should attempt to place it in an overall framework of other cases and theories."[27] The historical success or failure of anarchy, as compared with government, in facilitating social cooperation under the division of labor requires an *explanation* of facts, not merely a *description*. And an explanation requires the use of *theory*, the purpose of which is to understand *why* particular historical case studies illustrate the viability of social order without the state.

Whether or not anarchy features peaceful social cooperation and exchange or whether it will degenerate into social disorder and violence is dependent upon to the viability and likelihood of *voluntary* institutional mechanisms that *filter out* individuals who promote social disorder and *filter in* individuals who are expected to contribute to social order. We will discuss these sorts of exclusionary and inclusionary mechanisms in Section IV. For now, we simply want to emphasize that analytical anarchism is fundamentally an empirical study of the endogenous formation of rules that facilitate cooperation without command. It is therefore a radical inquiry into the *sources* of the formation of such rules. As we argue in the next section, *any* inquiry into the nature and causes of the wealth and poverty of nations requires, as an analytical starting point, the assumption of anarchy. Anarchy-focused inquiry is especially relevant if the social scientist is addressing the causes of relative success or failure of governments to secure property rights and facilitate contractual exchange as compared with anarchy.

## III. Why Assume Anarchy in Political Economy?

The political economy of governance proceeds on two levels of analysis. A "higher" level of analysis focuses on *the rules of the game* and is concerned with both formal and informal institutions, *as well as their enforcement*. A "lower level" focuses on individuals' interactions in pursuit of their goals. Understanding this dual level of analysis provides a useful framework for unpacking and clarifying particular misperceptions with regard to the study of anarchy.

The very mention of the word "anarchy" provokes an image of a world that is, at best, disorderly and chaotic, or, even worse, a Hobbesian jungle in which people are solitary and poor and life is nasty, brutish, and short. From this perspective, an anarchic society is one that is deeply deficient because, lacking *government*, it also lacks *governance*. But the absence of *rulers* need not mean the absence of *rules*. Anarchy can be understood as simply the absence of *government*—of the state, of a territorial monopoly on putatively legitimized force—rather than of *governance*. Misperceptions of or ambiguities inherent in anarchism as an analytical or normative project rest on the unwarranted conflation of anarchy understood as *a particular set of outcomes* and anarchy understood as an *institutional form of governance*. These two senses of *anarchy* are related but are nonetheless distinct from each other. The popular association of anarchy with chaos and disorder rests on the assumption that these are necessary features of social interaction in the absence of government, without which no rules for governance could exist. There are at least three reasons to doubt this assumption, implying that anarchy can be more peaceful and prosperous than the conventional wisdom suggests.

First, international commerce operates in a condition of anarchy. According to the World Trade Organization, the ratio of international trade in goods and commercial services to world gross domestic product (GDP) increased from just over 20 percent in 1995 to roughly 30 percent in 2014.[28] This figure represents a tremendous amount of wealth that is generated outside the shadow of the state, roughly equivalent to the GDP of the United States. The institutional basis for international commerce can be traced back to the emergence of what is known as the Law Merchant, or the *lex mercatoria*. The Law Merchant was a set of customary laws that began to emerge during the eleventh century, at a time when international trade was beginning to increase in Europe.[29] It emerged from independent sets of localized customs within particular jurisdictions that proved to be common across jurisdictions. Not only did the norms constituting the Law Merchant emerge voluntarily, though unintendedly, from the commercial interactions of merchants, but disputes regarding the application of these norms were adjudicated by private merchant courts to which the parties had voluntary recourse and non-violently enforced by threat of ostracism. The discipline of repeated dealing and the fear of the potential loss of future income because of boycotts by other merchants incentivized merchants to comply with merchant court rulings. Given that the politically fragmented nature of medieval Europe raised the transaction costs of enforcing property rights and adjudicating contractual disputes across jurisdictions, a commonly accepted set of legal institutions emerged to reduce transaction costs, at least where state enforcement of international commerce was lacking.[30] By the fourteenth century, many European governments had codified or begun to codify and enforce commercial laws that had initially formed elements of the Law Merchant. International commerce operates within an institutional framework that resembles the one that obtained in medieval Europe. Today, cross-border disputes among merchants are resolved under the umbrellas of arbitration associations similar to medieval merchant courts. According to the International Chamber of Commerce, among the largest of these associations, merchants voluntarily comply with its private arbitral decisions 90 percent of the time under threat of reputational pressures.[31]

Second, the evident deficiencies of and the clear limits facing actually existing governments highlight the importance of treating anarchy as a baseline point of comparison, as argued by economist Raghuram Rajan. Without "assuming anarchy" as an analytic starting point, as well as building positive transaction costs into our analysis, "economic theory offers us little guidance on how strong institutions are created and nurtured."[32] The "blame for this neglect should be attached to the canonical model in economics: the complete markets model."[33] Though Rajan admits that "some abstraction is important, gross abstraction can make a model irrelevant. And for many situations, at least in the developing world, the complete markets model is too far distanced from reality to be useful."[34] The evidence provided by the *Fragile States Index* (FSI), an annual report compiled by the Fund for Peace, best illustrates Rajan's point. Of the 178 countries measured in the FSI, roughly 31 countries are indicated under "alert," implying that such countries have governments that are dysfunctional, predatory, and on the verge of collapse.[35]

Though a theoretical case can be made that a territorial monopoly on coercion can facilitate economic development, empirically it does not necessarily imply that (a) governments are able to effectively to monopolize coercion and/or that (b) such preconditions are necessary for relatively greater prosperity.[36] Whether such claims hold will depend on empirical comparative institutional studies of a comparative institutional nature. Analytical anarchism, like political economy itself, is a study of comparative institutional arrangements, not a comparison between ideal statelessness and imperfect actually existing, imperfect states, and/or vice versa. Recent experience in Somalia nicely illustrates this point. Since the collapse of the predatory regime of Mohamed Siad Barre in 1991, Somalia has effectively been in a condition of anarchy. Perhaps unexpectedly, key elements of human welfare and economic development have improved during Somalia's period of statelessness.[37] To be sure, Somalia is still desperately poor. Thus, a critic might say, statelessness in Somalia does not illustrate the superiority of anarchy over the operation of a territorial monopoly on coercion. The critic's claim implies that, if a monopoly government in Somalia were to credibly establish political constraints on predation, economic and social outcomes would prove superior to those that obtain under anarchy. This might indeed be the case *if* such a government were a live option in contemporary Somalia. "If 'good government' is not one of the options in Somalia's institutional opportunity set, anarchy may be a constrained optimum. Among the options that are available, ultra-predatory government and statelessness, statelessness may be preferable."[38] The problems with the exogenous imposition of formal, Western liberal democratic institutions—without the rule of law—is particularly noted by Dutch legal scholar Michael van Notten, who married into and lived within the ambit of the Samaron Clan in Somalia. As he observes:

> A complicating factor in understanding Somali society is that, in the past 30 years, a million or more Somalis have emigrated to Europe and North America. From there, they have become a highly vocal political lobby in their country of origin. These Somalis are enjoying every advantage of the clan system while being spared most of its disadvantages. The advantages they enjoy are mutual support and comradeship. *The main disadvantage they are spared is the clans' destructive involvement in politics*. While these Somalis of the diaspora see that the clan structure has become a system pitting all clans and even sub-clans against one another, they generally fail to detect the cause. They don't see that the clan system only became such a monster with the introduction of democracy. They also overlook the fact that the essence of Somali society consists not in the clans, but in the customary law. Finally, they don't understand that the 'West' owes its wealth not to democracy, but rather to the protection of property rights, and that democracy [without the rule of law] is undermining and destroying those rights.[39]

This raises what we regard as the more relevant question of analytical anarchism, and for a political economy in general: what is the endogenous process by which a society expands its institutional opportunity set to include governance that places credible constraints on coercion? The long process of economic development turns on the institutional transition "from subsistence to exchange,"[40] a movement from small-scale trading and small-scale capital accumulation to medium-scale trading and medium-scale capital accumulation and, finally, to large-scale trading and large-scale capital accumulation. The trigger for the transition at each stage is the development of institutions that increasingly secure protection for people and their property from predation. Exogenous changes can undermine this endogenous, cumulative process of rule formation. In Somalia, this "transition is not easy and is far from complete."[41] This is because

> the expectation, actively promoted by the United Nations, that a central government would be reestablished in the near future led clan militias and remnants of the former government into armed conflict, often in disregard of customary law and their elders. Each group manoeuvered to be in the most favorable position to capture the formidable array of powers of the future government.[42]

Third, perhaps the most important reason to assume anarchy as an analytical starting point in political economy is that collective action problems likely evident in a dysfunctionally anarchic society might prove worse in a society under the rule of a dysfunctional state. Since the 1990s, multiple events—including the collapse of communism in Eastern and Central Europe, ethnic and religious fractionalization in the Balkans and the Middle East, and the exportation of liberal democracy to failed and weak states in the developing world—have demonstrated that effective governance depends on the endogenous formation of rules rather than their exogenous imposition. "Any proposal for change," as Buchanan argued, "involves the status quo as the necessary starting point. 'We start from here,' and not from someplace else."[43] Buchanan's point is not only more pressing with regard to failed and weak states today; it is also reinforced by Raghuram Rajan's rationale for assuming anarchy:

> a better starting point for analysis than a world with only minor blemishes may be a world where nothing is enforceable, property and individual rights are totally insecure, and the enforcement apparatus for every contract must be derived from first principle[44]

so that, from this analytic starting point, we can then understand how enforcement mechanisms emerge even in the most unlikely of cases.

## IV. Theoretical Approaches to Analytical Anarchism

From the perspective of analytical anarchism, problems of collective action affect not only anarchy, but also government. The market and the state are alternative institutional embodiments of governance. The market and the state in a given society emerge from the social interactions of the individuals constituting the society.[45] When markets or states function well, they can harness the productive and creative abilities of heterogeneous individuals across time, place, race, creed, and gender.

Social cooperation without the state is clearly possible among small numbers of homogeneous agents with low discount rates.[46] But analysts skeptical about the viability of anarchy maintain that social disorder will emerge under anarchy whenever groups are large, agents are heterogeneous, and agents' discount rates are high. On the skeptics' view, in the latter situation, the provision of public goods will be undermined by non-cooperation in the form of free-riding or predation. Simply put, there are high costs to "filtering in" or including "patient" and cooperative individuals and "filtering out" or excluding "impatient" and non-cooperative individuals. And both kinds of filtering are necessary if property rights are to be protected, contracts enforced, and public goods provided.

The problem of heterogeneity, not just in ethnicity, religion, sex, or wealth but also in the capacity and willingness to use force, poses a serious problem not only for anarchic governance but, indeed, for any sort of governance. Buchanan and Tullock acknowledge that their

> analysis of the constitution-making process has little relevance for a society that is distinguished by a sharp cleavage of the population into distinguishable social classes or separate racial, religious, or ethnic groups sufficient to encourage the formation of predictable political coalitions and in which one of these coalitions has a clearly advantageous position at the constitutional stage.[47]

Focusing specifically on anarchy, Daniel Sutter emphasizes that there is a distinction between securing initial possession of goods and services and providing enforceable agreements, and that the former must proceed the latter. The emergence of secure property rights, however, will depend on the distribution of force in society.[48] Because of the asymmetric distribution of force relationship between the protection agencies and individuals under a condition of anarcho-capitalism "the resulting distribution of rights may be highly skewed, with no effective freedom of choice between agenc[ies]."[49] Even scholars who have otherwise demonstrated the possibility of social cooperation without the state do not necessarily reject the necessity of government. While Robert Ellickson acknowledged that residents of Shasta County, California, were able to develop informal norms that served as preferable alternatives to legal rules and enforcement mechanisms,[50] he maintains that individuals needed government to provide them with "the Brooklyn Bridge, lighthouses, relatively clean air, and welfare programs suited to a geographically mobile society."[51] Ellickson's examples are typical of those commonly advanced in the course of economic arguments for monopoly governments.

In reality, however, the provision of public goods is a challenge not only for non-monopolistic social institutions but also for the state. To argue that the marginal cost of securing property rights by the state to an additional individual is zero, and therefore non-rivalrous, implicitly assumes homogeneity among individuals, and therefore assumes away the very problem of governance upon which the economic argument for the necessity of the state is characteristically premised. Recall that the state is supposed to be necessary, and anarchy to be non-viable, when, among other things, individuals are heterogeneous. But, when they are, scarce resources will be required to identify if in fact a given individual is "homogenous" with respect to her or his ability to cooperate with other individuals. The opportunity cost of each heterogeneous individual's membership in a given society is the cost of the foregone resources needed (a) to secure the property rights of others in the society if that individual turns out to threaten them and (b) to secure that individual's own property rights against others. Because of this foregone cost, the protection of such rights isn't a public good: it's rivalrous. Thus, institutional mechanisms for excluding non-cooperative individuals are *endogenous* and arise to reduce the transaction cost of acquiring information required to sort cooperative individuals from non-cooperative individuals.

To rule out the possibility of anarchy on the basis of the existence of large groups of heterogeneous and uncooperative (i.e. high-discount-rate) individuals puts the cart before the horse. Analytical anarchism approaches the issue of whether or not social cooperation in anonymity is possible, absent the state, by (a) beginning, from an analytic starting point, with the challenges posed by the need for social order in a society that is *already* large, heterogeneous, and inhabited by potentially uncooperative people; and (b) focusing on mechanisms of *inclusion* and *exclusion* available to such people.[52] On the margin, the size and degree of homogeneity and the level of cooperation are not *preconditions* of peaceful and productive social interaction under anarchy, but *by-products* of institutional mechanisms of inclusion and exclusion. "[I]t is far more likely that feelings of friendship and communion are the *effects* of a regime of (contractual) social co-operation rather than the cause."[53] Such institutional mechanisms emerge precisely because of their effectiveness in reducing the costs of identifying potential gains from trade, specifically by incentivizing the discovery of margins on which individuals are able to communicate about their willingness to engage in cooperative behavior.[54]

Among political economists working in the intellectual tradition of analytical anarchism, there are two distinct, though not mutually exclusive, approaches to illustrating how social cooperation can be facilitated without the state.

The first is the *exclusionary* approach, which stresses the role of *ex ante* mechanisms useful for "filtering out" untrustworthy and non-cooperative individuals from those who are trustworthy and cooperative. This approach emphasizes private provision of public goods, particularly the security of property rights, through mechanisms that make the exclusion of non-cooperators possible, in effect turning what is otherwise a public good into a club good.

The work of Edward Stringham exemplifies this approach. Stringham has illustrated the emergence and enforcement of rules governing stock exchanges in Holland and England in the seventeenth and eighteenth centuries, respectively, in the absence of state enforcement of contractual obligations.[55] Stockbrokers benefited from devising clear and predictable rules governing stock trading, but enforcing such rules posed a collective action problem for them. The potential loss of income suffered from fraudulent stockbrokers' free-riding on the reputations of other stockbrokers incentivized the joint provision of governance as a club good, one that utilized ostracism as a key enforcement tool. For example, in the coffeehouses of London, where English stock exchanges had had originally emerged, acts of deliberate fraud, or even unintentional default, by particular brokers resulted in their names being written on a blackboard. This form of boycott encouragement helped to protect other brokers from the risks of dealing with untrustworthy peers. At the same time, it incentivized other brokers to behave honestly and reliably in order to safeguard their access to potential future income.[56] The self-policing club arrangements Stringham has studied reveal the amazing creativity used by brokers, among others, to reduce the cost of excluding uncooperative individuals through *ex ante* sorting. The strategies Stringham describes exemplify the capacity of exclusionary mechanisms to transform large-group settings into more manageable small group settings, with the result that, even when a population pool is initially heterogeneous, those who are accepted into membership are more or less homogeneous on the margin that matters for the group—in this case, as in many others, with respect to honesty and trustworthiness.

The second, *inclusionary*, approach focuses on *ex post* mechanisms of "filtering in" potentially cooperative individuals. In effect, the non-rivalrous feature of public goods, according to this approach, is a *by-product* of inclusionary mechanisms that create margins of homogeneity among otherwise heterogeneous individuals. The result of the use of such inclusionary mechanisms is the evolution of generally applicable norms and rules from which all individuals can simultaneously benefit.

The work of Peter Leeson illustrates the exploration of this approach in various historical and cultural settings. For example, the extension of credit by producers of goods increased the costs of theft and the benefits of trade among middlemen in late precolonial Africa.[57] Given that middlemen during this period were the sole suppliers of firearms to interior communities, the distribution of force favored their ability to plunder, rather than trade.[58] However, credit served as a pre-contractual mechanism of inclusion that reduced the likelihood of predation. Credit allowed producers to trade with goods that did not yet exist, thus increasing the cost of theft for middlemen. In addition, by increasing the cost of theft for middlemen, who could not steal what had not yet been produced, this mechanism "filtered in" those individuals with lower discount rates, therefore incentivizing future repeated dealings, and "filtering out" those middlemen inclined to engage in violent theft. Thus, the extension of credit was a pre-contractual inclusionary mechanism capable of producing a public good—in this case self-governance—privately by eliciting a demand for trade among those middlemen patient enough to value the prospect of a future stream of income derived from trade rather than theft.

Leeson's work on pirate communities also defies the conventional wisdom with respect to the viability of anarchy.[59] On pirate ships, large groups of heterogeneous agents,[60] presumably with high discount rates, organized themselves under democratically elected captains and quartermasters constrained by constitutional rules (including ones, predating the formulation of the US Constitution, that mandated the separation of powers) and provided economic safety nets for the disabled.

Other inclusionary mechanisms facilitating peaceful social interaction between heterogeneous groups under anarchy include intermarriage between warring clans on the border between England and Scotland prior to their union[61] and the adoption of customs, practices, and languages to signal credibility and trustworthiness among strangers attempting to trade.[62] Such inclusionary mechanisms can enable people to overcome geographic and social distance in order to realize the gains from social cooperation under the division of labor.

## V. Conclusion

Analytical anarchism is a research program exploring the possibility of endogenous rule formation, governance in accordance with emergent rules, and thus of collective action emerging from the bottom up rather than dependent on top-down management. There *are* goods that are to one degree or another non-excludable or non-rivalrous or both, and that may thus not be produced, or not be produced at appealing levels, absent some sort of collective action. However, rules making possible the needed kinds of collective action can be created and sustained endogenously. Social-evolutionary processes must be cultivated in order to ensure that people can realize the benefits of social cooperation without command.

This outcome can be achieved in the course of peaceful social cooperation featuring exclusionary and inclusionary mechanisms. Though the inclusionary and exclusionary approaches are analytically distinct, they are intertwined empirically in multiple settings. The availability of each helps to enable social cooperation among heterogeneous individuals by, among other things, reducing the payoffs to violent and uncooperative behavior.[63] Thus, they provide convergent support for the occurrence of catallaxy.[64] By calling attention to social mechanisms that create and sustain bottom-up social order, analytical anarchism helps in perhaps unexpected ways to teach the *fundamental* lesson of political economy. Political economy in general, and analytical anarchism in particular, help to show us how it is possible to convert potentially violent situations into ones in which people can and do engage in mutually beneficial exchanges. They also show how people can set in motion, as an unintended by-product, the evolution of rules facilitating the occurrence of such exchanges among anonymous traders without the use of force.

## Notes

1 Carl Menger, *Investigations into the Methods of the Social Sciences with Special Reference to Economics* (New York, NY: New York UP 1985) 146.

2 Gary W. Cox, Douglass C. North, and Barry R. Weingast, "The Violence Trap: A Political Economic Approach to the Problems of Development," *Journal of Public Finance and Public Choice* 34.1 (2019): 3–19.

3 See Peter J. Boettke, "Anarchism as a Progressive Research Program in Political Economy," *Anarchy, State and Public Choice*, ed. Edward Stringham (Northampton, MA: Elgar 2005) 206–19; Peter J. Boettke, "Anarchism and Austrian Economics," *New Perspectives on Political Economy* 7.1 (2011): 125–40.

4 Our empirical and analytical focus is not intended to reflect a dismissive attitude regarding important normative and theoretical contributions to the study of anarchy. An overview of analytical anarchism must acknowledge its precursors, including the works of Murray Rothbard, Walter Block, and David Friedman. Their contributions have influenced and inspired scholars engaged in the analytical anarchist project today. See Murray N. Rothbard, *Power and Market: Government and the Economy* (Menlo Park, CA: Institute for Humane Studies 1970); Murray N. Rothbard, *For a New Liberty: The Libertarian Manifesto* (New York, NY: Macmillan 1973); Murray N. Rothbard, *The Ethics of Liberty* (Atlantic Highlands, NJ: Humanities 1982); Walter Block, *Defending the Undefendable*, 2d ed. (Auburn, AL: Mises 2011); David D. Friedman, *The Machinery of Freedom*, 3d ed. (Charleston, SC: CreateSpace 2015).

5 The term "market failure" was coined by economist Francis Bator, "The Anatomy of Market Failure," *Quarterly Journal of Economics* 72.3 (1958): 351–79.

6 For a more complete discussion of this point, see Peter J. Boettke and Peter T. Leeson, "Introduction," *The Economic Role of the State*, ed. Boettke and Leeson (Northampton, MA: Elgar 2015) xi–xxv.

7 We draw attention to the work of Alchian, Buchanan, and Coase because, by pioneering the development of property rights economics, public choice economics, and law and economics, respectively, each of them redirected the analytical focus of economic analysis to questions related to choice *over* institutional arrangements rather than *within* institutional arrangements and the role of institutional entrepreneurship in devising institutional arrangements capable of providing public goods. See Peter J. Boettke and Rosolino A. Candela, "Alchian, Buchanan, and Coase: A Neglected Branch of Chicago Price Theory," *Man and the Economy: The Journal of the Coase Society* 1.2 (2014): 189–208; and Peter J. Boettke and Rosolino A. Candela, "Rivalry, Polycentricism, and Institutional Evolution," *Advances in Austrian Economics* 19 (2015): 1–19.

8 Paul A. Samuelson, "The Pure Theory of Public Expenditure," *Review of Economics and Statistics* 36.4 (1954): 387–9.

9 See Paul A. Samuelson, *Economics: An Introductory Analysis*, 5th ed. (New York, NY: McGraw-Hill 1961) 192–3; Paul A. Samuelson and William D. Nordhaus, *Economics,* 19th ed. (New York, NY: McGraw-Hill 2009) 37. Samuelson was not the first economist to justify government intervention in the financing of lighthouses on the grounds of non-excludability. John Ramsey McCulloch and, more notably, John Stuart Mill were among the earliest economists to assume that the potential of free-riding justified government involvement in the provision of lighthouses. See John Ramsey McCulloch, "On the Frequency of Shipwrecks," *Edinburgh Review* 60 (1835): 338–53; John Stuart Mill, *Principles of Political Economy* (Amherst, NY: Prometheus 2004).

10 See James M. Buchanan, "An Economic Theory of Clubs," *Economica* 32 (1965): 1–14.

11 Harold Demsetz has also noted that there is a further distinction, obscured by Samuelson, between *public* goods and *collective* goods. Both are non-rivalrous. But only in the case of collective goods is it "*impossible* to exclude nonpurchasers" (emphasis original). See Harold Demsetz, "The Private Production of Public Goods," *Journal of Law and Economics* 13.2 (1970): 254.

12 Ronald H. Coase, "The Lighthouse in Economics," *Journal of Law and Economics* 17.2 (1974): 357–76.

13 Coase 375.

14 For an extension of Coase's analysis to the case of lightships, see Rosolino Candela and Vincent Geloso, "The Lightship in Economics," *Public Choice* 176.3–4 (2018): 479–506; Rosolino Candela and Vincent Geloso, "Coase and Transaction Costs Reconsidered: The Case of the English Lighthouse System," *European Journal of Law and Economics* 48.3 (2019): 331–49.

15 Armen A. Alchian and William R. Allen, *University Economics: Elements of Inquiry,* 3d ed. (Belmont, CA: Wadsworth 1972) 250.

16 Alchian and Allen 250.

17 Tyler Cowen, "Public Goods Definitions and their Institutional Context: a Critique of Public Goods Theory," *Review of Social Economy* 43.1 (1985): 53–63; Christopher J. Coyne, "Lobotomizing the Defense Brain," *Review of Austrian Economics* 28.4 (2015): 371–96.

18 In "Public Goods Definitions," Cowen builds on this point by arguing that the degree to which any good is non-rivalrous or non-excludable depends on its institutional context.

19 For a more comprehensive overview of the relationship between the study of public choice and the study of anarchy, see Benjamin Powell and Edward P. Stringham, "Public Choice and the Economic Analysis of Anarchy: A Survey," *Public Choice* 140.3–4 (2009): 503–38.

20 Gordon Tullock, ed., *Explorations in the Theory of Anarchy* (Blacksburg, VA: Center for the Study of Public Choice 1972); Gordon Tullock, ed., *Further Explorations in the Theory of Anarchy* (Blacksburg, VA: University 1974).

21 Winston Bush, "Individual Welfare in Anarchy," Tullock, *Explorations* 5.

22 An important exception was David Friedman, Assistant Professor of Economics at Virginia Tech between 1976 and 1980.
23 James M. Buchanan, "Reflections after Three Decades," Stringham, *Anarchy* 192.
24 See Diego Gambetta, ed., *Trust: Making and Breaking Cooperative Relations* (Oxford: Blackwell 1988); Diego Gambetta, *The Sicilian Mafia: The Business of Private Protection* (Cambridge, MA: Harvard UP 1993).
25 Gambettta, *Mafia* 275n3.
26 Though the Sicilian Mafia emerged because of the state's failure to secure and enforce private property rights, this does not imply the complete absence of the state itself. It would be more precise to argue that the predatory nature of the state in Sicily created the conditions for its emergence of the Sicilian Mafia as a substitute mechanism of property rights enforcement in the early nineteenth century. See Peter J. Boettke and Rosolino A. Candela, "Productive Specialization, Peaceful Cooperation, and the Problem of the Predatory State: Lessons From Comparative Historical Political Economy," *Public Choice*, forthcoming; Rosolino A. Candela, "The Political Economy of Insecure Property Rights: Insights from the Kingdom of Sicily," *Journal of Institutional Economics*, forthcoming.
27 Avinash K. Dixit, *Lawlessness and Economics: Alternative Modes of Governance* (Princeton, NJ: Princeton UP 2004) 22.
28 World Trade Organization, *International Trade Statistics 2015* (Geneva: WTO 2015) 17.
29 Bruce L. Benson, "The Spontaneous Evolution of Commercial Law," *Southern Economic Journal* 55.3 (1989): 644–61.
30 Benson provides several reasons why the Law Merchant emerged during this period. The first reason is that state law did not recognize or enforce what merchant law acknowledged. For example, government courts typically would not consider disputes that included (i) contracts made in another nation, (ii) contractual agreements which involved the payment of interest, or (iii) books of account as evidence despite the fact that merchants held them in high regard. Second, merchant courts were chaired by judges from the relevant merchant community, who had specialized and particular knowledge of technical issues involved in merchant disputes. Therefore, merchant courts could generally adjudicate disputes in a more expeditious manner. See Benson 649–50.
31 Peter T. Leeson, "One More Time with Feeling: The Law Merchant, Arbitration, and International Trade," *Indian Journal of Economics and Business* 29 (2007): 29–34; Peter T. Leeson, "Anarchy Unbound: How Much Order Can Spontaneous Order Create?" *Handbook on Contemporary Austrian Economics*, ed. Peter J. Boettke. (Northampton, MA: Edward Elgar 2010) 136–153; Peter T. Leeson, *Anarchy Unbound: Why Self-Governance Works Better Than You Think* (New York, NY: CUP 2014).
32 Rajan Raghuram, "Assume Anarchy?" *Finance and Development*, Sep. 2004: 56.
33 Raghuram 56. Raghuram goes further to describe the complete markets model as one in which "everyone is fully informed; every eventuality is anticipated in contracts; all contracts are enforced by omniscient, incorruptible courts; and governments automatically take care of all the public goods and interfere in none of the private ones."
34 Raghuram 56.
35 See J.J. Messner, ed., *Fragile States Index Annual Report 2019* (Washington, DC: Fund for Peace 2019).
36 Though not an anarchist, economics Nobel Laureate Douglass North has observed: "The existence of a state is essential for economic growth; the state, however, is the source of man-made economic decline." See Douglass C. North, *Structure and Change in Economic History* (New York, NY: Norton 1981) 20.
37 Peter T. Leeson, "Better Off Stateless: Somalia before and after Government Collapse," *Journal of Comparative Economics* 35.4 (2007): 698–710; Benjamin Powell, Ryan Ford, and Alex Nowrasteh, "Somalia after State Collapse: Chaos or Improvement?" *Journal of Economic Behavior and Organization* 67.3–4 (2008): 657–70.
38 Leeson, "Stateless" 707; see also Peter T. Leeson and Claudia Williamson, "Anarchy and Development: An Application of the Theory of Second Best," *Law and Development Review* 2.1 (2009): 77–96.
39 Michael van Notten. *The Law of the Somalis: A Stable Foundation for Economic Development in the Horn of Africa*, ed. Spencer Heath MacCallum (Trenton, NJ: Red Sea 2005) 9. Emphasis added.
40 P.T. Bauer, *From Subsistence to Exchange* (Princeton, NJ: Princeton UP 2000).
41 Van Notten 8.
42 Van Notten 8.
43 James M. Buchanan, *Collected Works of James M. Buchanan 7: The Limits of Liberty* (Indianapolis, IN: Liberty Fund 2000) 101.
44 Rajan 57.
45 See Richard E. Wagner, *Politics as a Peculiar Business: Insights from a Theory of Entangled Political Economy* (Northampton, MA: Elgar 2016); Paul Dragos Aligica, Peter J. Boettke, and Vlad Tarko, *Public Governance and the Classical-Liberal Perspective: Political Economy Foundations* (New York, NY: OUP 2019).

46 Janet T. Landa, "A Theory of the Ethnically Homogenous Middleman Group: An Institutional Alternative to Contract Law," *Journal of Legal Studies* 10.2 (1981): 349–62; Avner Greif, "Reputation and Coalitions in Medieval Trade: Evidence on the Maghribi Traders," *Journal of Economic History* 49.4 (1989): 857–82; Avner Greif, "Contract Enforceability and Economic Institutions in Early Trade: The Maghribi Traders' Coalition," *American Economic Review* 8.3 (1993): 525–48; Lisa Berstein, "Opting Out of the Legal System: Extralegal Contractual Relations in the Diamond Industry," *Journal of Legal Studies* 21.1 (1992): 115–57; Barak Richman, *Stateless Commerce: The Diamond Network and the Persistence of Relational Exchange* (Cambridge, MA: Harvard UP 2017).

47 James M. Buchanan and Gordon Tullock, *The Calculus of Consent: Logical foundations of Constitutional Democracy* (Ann Arbor, MI: U of Michigan P 1962) 80.

48 Daniel Sutter, "Asymmetric Power Relations and Cooperation in Anarchy," *Southern Economic Journal* 61.3 (1995): 602–13

49 Sutter 604. On the issues discussed in the text relating to impact of the distribution of rights and the returns to violence on the viability of anarchy, see John Umbeck, "Might Makes Rights: A Theory of the Formation and Initial Distribution of Property Rights," *Economic Inquiry* 19.1 (1981): 38–59; Jack Hirshleifer, "Anarchy and Its Breakdown," *Journal of Political Economy* 103.1 (2005): 26–52; Rosolino A. Candela and Vincent Geloso, "Statelessness and the Endogeneity of Generalized Increasing Returns: Acadian Settlers and Native Americans Before 1755," *SSRN Working Paper*, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3028206 (2019; last visited January 15, 2020).

50 Robert C. Ellickson, "Of Coase and Cattle: Dispute Resolution Among Neighbors in Shasta County," *Stanford Law Review* 38.3 (1986): 623–87; Robert C. Ellickson, *Order without Law: How Neighbors Settle Disputes* (Cambridge, MA: Harvard UP 1991).

51 Robert C. Ellickson, "A Hayekian Case Against Anarcho-Capitalism: Of Street Grids, Lighthouses, and Aid to the Destitute," *New York University Journal of Law and Liberty* 11.1 (2017): 372.

52 See Boettke, "Anarchism" 125–40. Emphasis original.

53 Murray N. Rothbard, *Man, Economy, and State: A Treatise on Economic Principles* (Princeton, NJ: Van Nostrand 1962) 85.

54 See Peter J. Boettke and Rosolino A. Candela, "Rivalry, Polycentricism, and Institutional Evolution," *Advances in Austrian Economics* 19 (2015): 1–19.

55 Edward Stringham, "The Emergence of the London Stock Exchange as a Self-Policing Club," *Journal of Private Enterprise* 17.2 (2002): 1–19; Edward P. Stringham, "The Extralegal Development of Securities Trading in Seventeenth Century Amsterdam," *Quarterly Review of Economics and Finance* 43.2 (2003): 321–344; Edward P. Stringham, *Private Governance: Creating Order in Economic and Social Life* (New York, NY: OUP 2015).

56 Stringham, "Emergence" 6–7.

57 Peter T. Leeson, "Trading With Bandits," *Journal of Law and Economics* 50.2 (2007): 303–21;

58 Leeson, "Trading" 306.

59 Peter T. Leeson, "An-arrgh-chy: The Law and Economics of Pirate Organization," *Journal of Political Economy* 115.6 (2007): 1049–94; Peter T. Leeson, *The Invisible Hook: The Hidden Economics of Pirates* (Princeton, NJ: Princeton UP 2009).

60 Black and white sailors served together on pirate ships, and the proportion of black sailors was generally *higher* on pirate ships than on conventional merchant ships (see Leeson, *Hook* 157).

61 Peter T. Leeson, "The Laws of Lawlessness," *Journal of Legal Studies* 38.2 (2009): 471–503.

62 See Peter T. Leeson, "Endogenizing Fractionalization," *Journal of Institutional Economics* 1.1 (2005): 75–98; Peter T. Leeson, "Social Distance and Self-Enforcing Exchange," *Journal of Legal Studies* 37.1 (2008): 161–88.

63 See, for example, John Umbeck, "The California Gold Rush: A Study of Emerging Property Rights," *Explorations in Economic History*, 14.3 (1977): 197–226; Terry L. Anderson and P.J. Hill, *The Not So Wild, Wild West: Property Rights on the Frontier* (Stanford, CA: Stanford UP 2004); David Friedman, "Private Creation and Enforcement of Law: A Historical Case," *Journal of Legal Studies* 8.2 (1979): 399–415; and David Skarbek, *The Social Order of the Underworld: How Prison Gangs Govern the American Penal System* (New York, NY: OUP 2014). Though we have used Leeson's work to illustrate the inclusionary approach, he also offers an example of the exclusionary approach similar to Stringham's in "Governments, Clubs, and Constitutions," *Journal of Economic Behavior and Organization* 80.2 (2011): 301–8.

64 For further discussion of the meaning of catallaxy, see F.A. Hayek, *Law, Legislation and Liberty 2: The Mirage of Social Justice* (Chicago, IL: U of Chicago P 1976) 108.